

Article

Quantification and Characterization of Antimicrobial Resistance in Greywater Discharged to the Environment

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Table S1. Details of greywater (GW) sources sampled from different Bedouin Villages.

Village	House ID	Source of greywater (GW)
Al-Fura	A	Mixed GW
	B	Kitchen
	C	Kitchen
	D	Kitchen
	E	Kitchen
Qasr al-Sir	A	Kitchen
	B	Shower
	C	Kitchen
	D	Kitchen
Tel Arad	A	Laundry
	B	Mixed GW
	C	Kitchen
Um Batin	A	Mixed GW
	B	Kitchen
	C	Kitchen
	D	Kitchen
Wadi al-Na'am	A	Kitchen
	B	Kitchen
	C	Kitchen
	D	Kitchen

Table S2. Details of primers and annealing temperature used in real time PCR assay.

Primers	Sequence	Gene	Amplicon size	Annealing (°C)	Reference
<i>bla</i> CTX-M-32 -F	CGTCACGCTGTTGTTAGGAA	<i>bla</i> CTX-M-32	156 bp	63	[45]
<i>bla</i> CTX-M-32 -R	CGCTCATCAGCACGATAAAG				
<i>qbla</i> TEM -F	TTCCTGTTTTTGCTCACCCAG	<i>bla</i> TEM	112 bp	60	[46]
<i>qbla</i> TEM -R	CTCAAGGATCTTACCGCTGTTG				
<i>sul</i> 1-F	CGCACCGGAAACATCGCTGCAC	<i>sul</i> 1	162 bp	65	[47]
<i>sul</i> 1-R	TGAAGTCCGCGCAAGGCTCG				
<i>Int</i> 11C5-F	GATCGGTCTGAATGCGTGT	<i>int</i> 11	196 bp	60	[48]
<i>Int</i> 11C1-R	GCCTTGATGTTACCCGAGAG				
<i>qnr</i> S-F	GACGTGCTAACTTGCGTG	<i>qnr</i> S	118 bp	62	[49]
<i>qnr</i> S-R	TGGCATTGTTGGAAACTT				
341F	GCCTACGGGAGGCAGCAG	16S rRNA	177 bp	55	[50]
518R	ATTACCGCGGCTGCTGG				

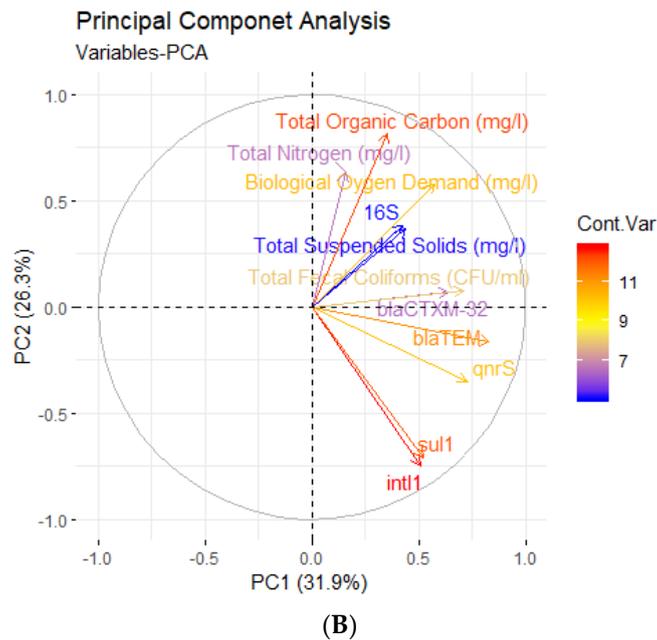
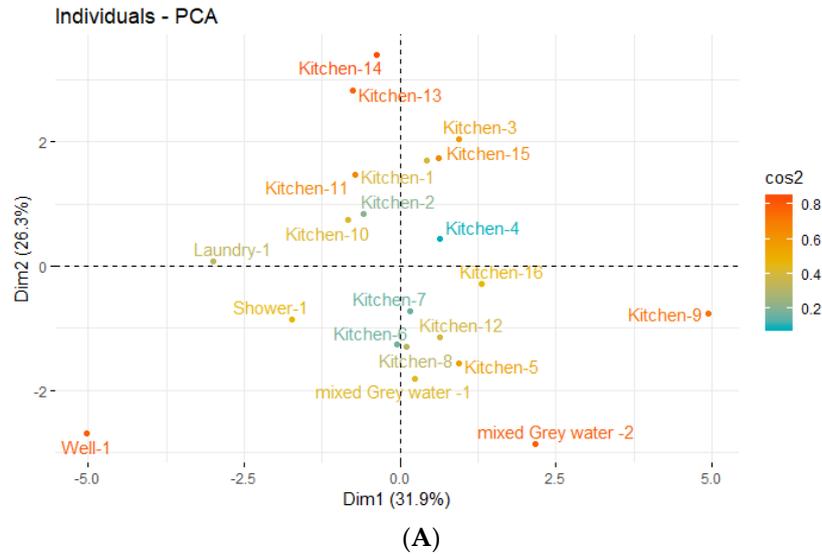


Figure S1. Principal component analysis of various physiochemical parameters and relative abundance of antimicrobial resistance genes analyzed in untreated GW samples. (A) Individuals PCA – each individual biological replicate represented as a colored label corresponding to the type of water sample. Values indicated on the axis of map correspond to the percentage of total variance explained by each axis (PC1 and PC2 respectively). (B) Variables PCA – showing contribution of individual variables to the total variance.

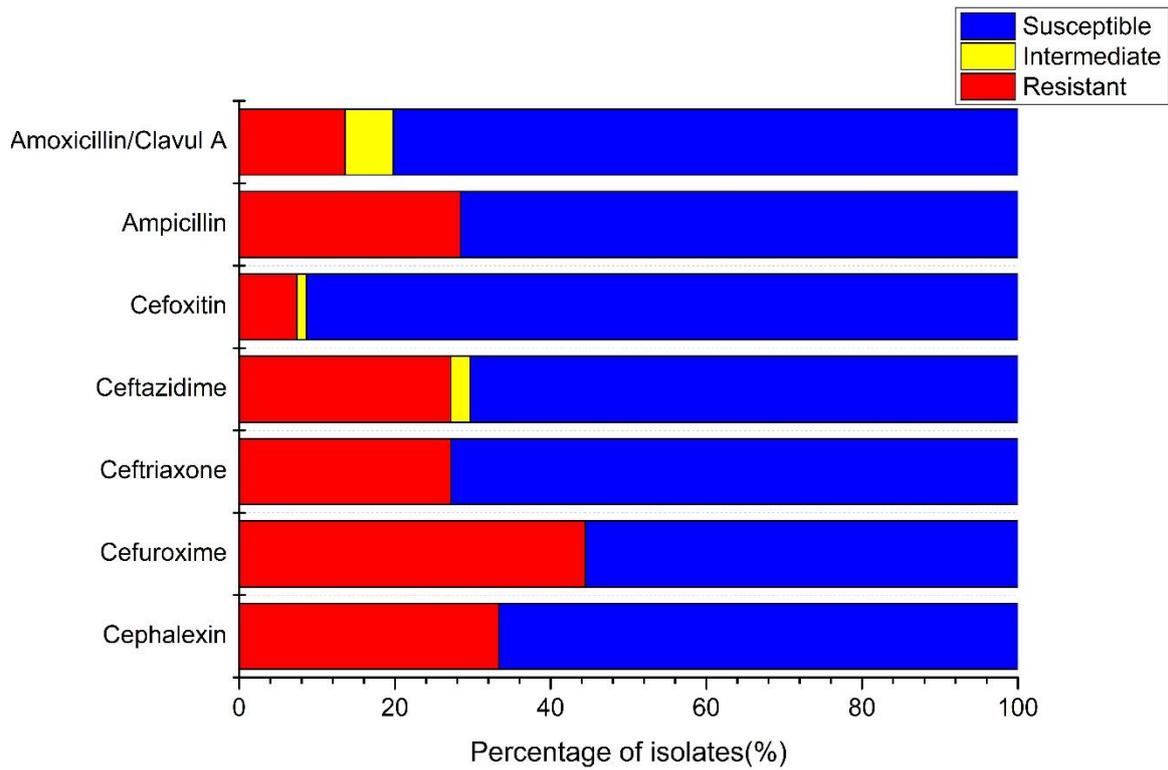


Figure S2. Percentage of resistance patterns of isolates obtained from GW of Bedouin villages against β -lactam antimicrobials. Data shows percentage susceptible, intermediate and resistance to β -lactam antimicrobials among 81 potential ESBL isolates.